

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed on July 29, 2004. Claims 1-39 are pending in the Application. The Office Action indicates that Claims 18 and 32 are allowable if rewritten in independent form, but rejects Claims 1-17, 19-31 and 33-39. To advance the prosecution of this Application, Claims 16 has been amended to include the limitations of allowed Claim 18 and intervening Claim 17. Further, Claims 17 and 18 have been cancelled. For at least these reasons discussed below, Applicants respectfully request reconsideration and favorable action in this Application.

Allowable Subject Matter

Applicants appreciate the Examiner's indication that "Claims 18 and 32 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In response, Applicants amend Claim 16 to include the limitations of Claim 18 and intervening Claim 17. As depending from allowable Claim 16, Claims 19-26 are also allowable. Favorable action is requested.

Applicants decline to rewrite Claim 32 in independent form at this time because Applicants respectfully submit that Claim 27, which is the independent claim of Claim 32, is allowable for reasons described below.

Rejections under 35 U.S.C. § 103

Claims 1-11, 14-15, 27-31, 33-37, and 39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,246,582 issued to Kondo, et al. ("*Kondo*"), and further in view of U.S. Patent No. 6,226,331 issued to Gambuzza ("*Gambuzza*"). Claims 12-13 and 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kondo* and *Gambuzza*, and further in view of U.S. Patent No. 4,432,029 issued to Lundqvist ("*Lundqvist*"). Claims 16-17 and 19-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kondo* and *Gambuzza* and further in view of *Lundqvist*. Applicants traverse these rejections for reasons provided below.

Claim 27 is allowable because neither *Kondo* nor *Gambuzza* teaches or suggests "attenuating the first data signals in the transmit frequency band and the second data signals in the receive frequency band with a resistive circuit, **the amount of attenuation decreasing as frequency increases for the first data signals in the transmit frequency band** and the

amount of attenuation remaining substantially consistent for the second data signals in the receive frequency band,” [emphasis added] as recited by Claim 27. The Office Action does not explicitly address the above-emphasized portion of Claim 27, but appears to suggest that the isolating capacitive circuits of *Gambuzza* show this limitation. Regardless of whether *Gambuzza* in fact shows this limitation, which it does not, modifying the invention of *Kondo* as proposed in the Office Action using such a teaching would render *Kondo* inoperable for its intended purpose, and thus the rejection of Claim 27 based on a proposed combination of *Kondo* and *Gambuzza* is improper.¹ In general, *Kondo* teaches optimizing the performance of its hybrid coil 16 by adjusting the impedance level from the viewpoint of hybrid coil 16 in order to minimize the leakage of the transmitted signal into the receive line. (See column 4, lines 42-47). As a part of this optimization process, *Kondo* teaches **increasing** the amount of attenuation as the frequency of the transmission signal increases and vice versa, which is directly opposite from what is claimed in Claim 27. Thus, if one were to implement the proposed modification of *Kondo* and **decrease** the amount of attenuation as the frequency increases, then at least according to *Kondo*, the level of impedance from the point of view of hybrid coil 16 would move **farther away from the optimum level**, which would worsen the signal leakage and thus render the invention of *Kondo* inoperative. A more detailed explanation of this assertion is provided below.

Kondo maintains an optimum level of impedance for hybrid coil 16 by increasing the level of attenuation in the transmission line when the impedance of the transmission line as viewed by hybrid coil 16 decreases, and vice versa. The increase of the attenuation level in the transmission line is implemented by increasing the resistance of pad 17. (See column 4, lines 47-51 – “[Automatic adjustment of the impedance to an optimum value] is accomplished by increasing the resistance of the pad 17 as the impedance of the external portion of the transmission line 18 decreases and vice versa.”). To determine whether to increase the resistance of pad 17, the impedance level of transmission line 18 as viewed by hybrid coil 16 is measured by sensing the ratio of the reception signal level over the transmission leakage signal level. (See column 4, lines 3-7). The reception signal has a low frequency, and the transmission signal, which is described as leaking at hybrid coil 16, has a high frequency. (See column 3, lines 32-35). Thus, if the transmission leakage signal level -

¹ “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purposes, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d

a high frequency signal - is increased, then the ratio of reception signal level over the transmission leakage signal is decreased, which in turn indicates that the impedance of the transmission line is decreased. And as described earlier, *Kondo* teaches increasing the impedance of the resistance of the pad 17 - thus increasing the attenuation - when the impedance of the transmission line decreases. Thus, *Kondo* teaches increasing the attenuation level as the transmission leakage signal level - a high frequency signal - increases.

It is well known in the art that a hybrid coil, such as hybrid coil 16, has a greater tendency of signal leakage as the frequency of the signal is increased, regardless of the frequency range in which the hybrid coil is designed to operate. For example, column 3, lines 24-27 of *Kondo* identifies a problem of leakage of the transmitted signal - which is a high frequency signal - through the hybrid coil 16. Because of this characteristic of a hybrid coil, an increase in the frequency of the transmission signal would result in an increase in the level of signal leakage. Thus, if the frequency of the transmission signal is increased, the transmission leakage signal level increases, which would decrease the ratio of the reception signal level over the transmission leakage signal level. As described earlier, the decrease of the ratio indicates a decrease in impedance of the transmission line, and *Kondo* teaches increasing the attenuation as a response in order to counterbalance the decrease in the impedance of the transmission line, thus maintaining the optimum impedance level for hybrid coil 16. Therefore, *Kondo* teaches increasing the attenuation level when the frequency of the transmission signal increases.

However, this is directly opposite from the missing limitation of Claim 27, which recites decreasing the level of attenuation as the frequency of the signal in the transmit frequency band increases. Modifying the invention of *Kondo* as proposed in the Office Action would in fact take the impedance level farther away from the optimal level for the hybrid coil 16 of *Kondo*. Thus, there is no motivation for the proposed modification of *Kondo* using *Gambuzza* or any other reference in the manner suggested in the Office Action because such a modification would render the invention of *Kondo* inoperable, and Claim 27 is allowable. Favorable action is requested

Claim 1 is allowable because the Office Action fails to show a motivation for one skilled in the art to combine *Kondo* with *Gambuzza*. A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of

invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one “to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.” *In re Kotzab*, 217 F.3d 1365, 1369, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000). The Federal Circuit has also repeatedly warned against using the applicant’s disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art. *See, e.g., Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902,907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988). Further, “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” M.P.E.P. §2143.01 (citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)) (*emphasis in original*).

The Office Action appears to state that one skilled in the art would have been motivated to combine *Kondo* with *Gambuzza* despite the generally favored use of a hybrid coil to isolate lower frequency signals for the stated reason that “[i]t would have been obvious to one of ordinary skill in the art at the time of this application to design the transceiver system (including hybrid coil 16 and all additional circuitry) to operate at high frequencies (such as ADSL) for the purpose of being comparable with modern day transmission standards and rates.” [emphasis added]. Applicants respectfully disagree, and submit that the reason provided in support of the proposed combination indicates that the rejection is based on the use of impermissible hindsight to combine the references using the present application as a blue print. An assertion that there is motivation to modify the invention of *Kondo* using modern day transmission standards and rates clearly indicates that the mind of the Examiner was not cast back to the time of invention to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. Rather, it appears that the rejection is based on the thinking of a mind that remained at the present time and considered the thinking of one of ordinary skill in the art guided by the cited references, “the modern day transmission standards and rates,” and the present Application, which is clearly inappropriate. Thus, the proposed combination of the cited references is inappropriate, and Claim 1 is allowable. Favorable action is requested.

As depending from allowable independent Claims 27 and 1, dependent Claims 28-39 and 2-15 are also allowable. Additionally, Claim 3 is allowable for reasons analogous to those provided in conjunction with Claim 27. Because Claim 16 has been amended to include the limitations of allowed Claim 18, Claims 17 and 18 have been cancelled, and Claims 19-26 depend from amended Claim 16, the rejections of Claims 16-17 and 19-26 are moot. Favorable action is requested.

CONCLUSION

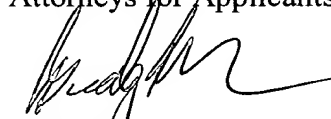
Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully requests full allowance of all the pending claims.

If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, please feel free to contact the undersigned attorney for Applicants.

Applicants believe no fee is due. However, the Commissioner is hereby authorized to charge any other fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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